



MI Flu Focus

Influenza Surveillance Updates Bureaus of Epidemiology and Laboratories



Co-Editors: Stefanie DeVita, RN, MPH
Bethany Reimink, MPH

devitas1@michigan.gov
reiminkb@michigan.gov

February 11, 2015
Vol. 12; No. 4

MI's Current Influenza

Activity Level:

Widespread

Updates of Interest:

Nationally, the flu-associated hospitalization rate among people 65 years & older is the highest rate recorded since CDC began tracking the data in 2005.

Influenza Surveillance Report for the Week Ending January 31, 2015

Michigan Disease Surveillance System

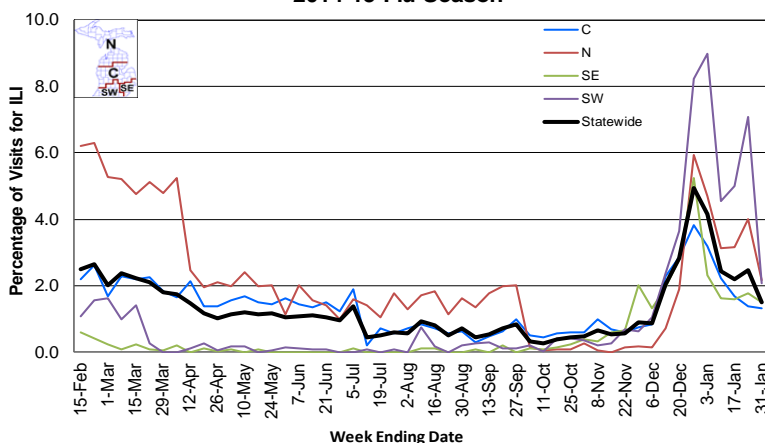
MDSS influenza data indicated that compared to levels from the previous week, individual reports decreased while aggregate reports remained steady. Individual and aggregate reports are higher than levels seen during the same time period last year.

Emergency Department Surveillance

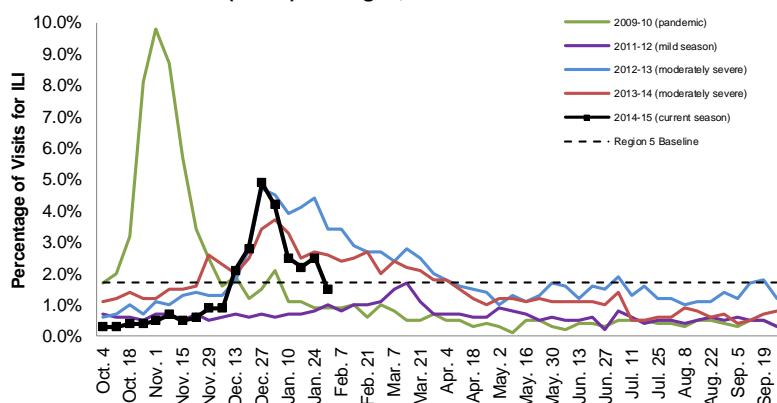
Compared to levels from the week prior, emergency department visits from constitutional complaints remained level while respiratory complaints increased. Levels of constitutional complaints were noticeably higher than levels compared to the same time period last year while respiratory complaints were slightly higher compared to the previous year.

- 5 constitutional alerts (3SW, 2C)
- 6 respiratory alerts (2SW, 3C, 1N)

**Percentage of Visits for Influenza-like Illness (ILI)
Reported by Sentinel Providers, Statewide and Regions
2014-15 Flu Season**



**Percentage of Visits for Influenza-like Illness (ILI) Reported by
the US Outpatient Influenza-like Illness Surveillance Network
(ILINet): Michigan, Select Seasons**



Sentinel Provider Surveillance

The proportion of visits due to influenza-like illness (ILI) decreased to 1.5% overall; this is below the regional baseline (1.7%). A total of 131 patient visits due to ILI were reported out of 8,776 office visits. Please note: These rates may change as additional reports are received.

Number of Reports by Region (28 total):

- C (11)
- N (4)
- SE (9)
- SW (4)

Become a Sentinel Provider!

As part of pandemic influenza surveillance, CDC and MDCH highly encourage year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Stefanie DeVita at devitas1@michigan.gov for more information.

Table of Contents:

Michigan Surveillance.....	1-3
National Surveillance.....	3
International Surveillance....	3
FluBytes	4

Hospital Surveillance

The CDC Influenza Hospitalization Surveillance Project provides population-based rates of hospitalization due to severe influenza illness through active surveillance and chart review of lab-confirmed cases, starting on October 1, 2014, for Clinton, Eaton, Genesee, and Ingham counties. There were 15 influenza-related hospitalizations reported (accumulated total since Oct. 1: 66 children, 267 adults).

Based on these counts, there have been 34.2 pediatric influenza hospitalizations per 100,000 population and 39.0 adult influenza hospitalizations per 100,000 population within the catchment area.

The MDCH Influenza Sentinel Hospital Network monitors influenza hospitalizations reported voluntarily by hospitals statewide, and 11 hospitals (SE,SW,C) reported. Results are listed in the table below. **Additional hospitals are welcome to join; please contact Seth Eckel at eckels1@michigan.gov.**

Age Group	New Flu Hospitalizations Reported	Total 2014-15 Flu Hospitalizations to Date
0-4 years	2 (1C, 1SE)	22 (15C, 4SE, 3SW)
5-17 years	0	25 (24C, 1SE)
18-49 years	2 (1SE, 1SW)	51 (8C, 41SE, 2SW)
50-64 years	9 (6SE, 3SW)	80 (8C, 62SE, 10SW)
65 years & older	18 (1C, 14SE, 3SW)	395 (16C, 339SE, 40SW)
Total	31 (2C, 22SE, 7SW)	573 (71C, 447SE, 55SW)

Laboratory Surveillance

MDCH Bureau of Laboratories reported 25 new positive influenza results: 18 A/H3 and 7 influenza B. A total of 454 positive influenza results have been reported for the 2014-15 season. Influenza results for the 2014-15 season are reported in the table below.

Respiratory Virus	# Positive Respiratory Virus Results by Region				Total	# Specimens Antigenically Characterized	# Tested for Antiviral Resistance
	C	N	SE	SW			# Resistant / Total # Tested
2009 A/H1N1pdm				1	1		
Influenza A/H3	108	28	92	196	424	8* (3 A/Texas/50/2012-like**, 5 A/Switzerland/9715293/2013-like)	0 / 34
Influenza B	4	4	15	4	27	27 (26 B/Yamagata lineage, 1 inconclusive)	
Influenza A, unsubtypeable	1			1	2		

*Specimens antigenically characterized by CDC; **A/Texas/50/2012 (H3N2) virus is the H3N2 component of the 2014-15 Northern Hemisphere flu vaccine. A/Switzerland/9715293/2013-like is an antigenic variant of the current vaccine virus.

In addition, 13 sentinel clinical labs (4SE,2SW,6C,1N) reported influenza results. Eleven labs (SE,SW,C,N) reported influenza A activity with an overall downward trend continuing and a few sites now at low activity levels. Ten labs (SE,SW,C,N) reported low or slightly elevated influenza B activity. Three labs (SE,C) reported low Parainfluenza activity. Ten labs (SE,SW,C) reported RSV activity, with elevated levels continuing in the SE region. Four labs (SE,SW,C) reported low Adenovirus activity. Five labs (SE,SW,C) reported low or slightly elevated hMPV activity. Nearly all testing volumes continue to decline further but more than half of the sites remain in the high range.

Influenza Congregate Settings Outbreaks

There were 6 respiratory facility outbreaks (3 confirmed flu A, 1 confirmed flu, and 2 unknown etiology/no testing) reported. There have been a total of 128 respiratory facility outbreaks reported to MDCH for the 2014-15 season. Respiratory facility outbreaks are listed in the table below by facility type and surveillance region.

Facility Type	C	N	SE	SW	Total
Adult Care Facility		1	2		3
Long-Term Care / Assisted Living Facility	23	9	27	31	90
K-12 School	1		1		2
Daycare				1	1
Unknown / Investigation Pending	16		4	9	29
Healthcare Facility				3	3
Total	40	10	34	44	128

Influenza-associated Pediatric Mortality

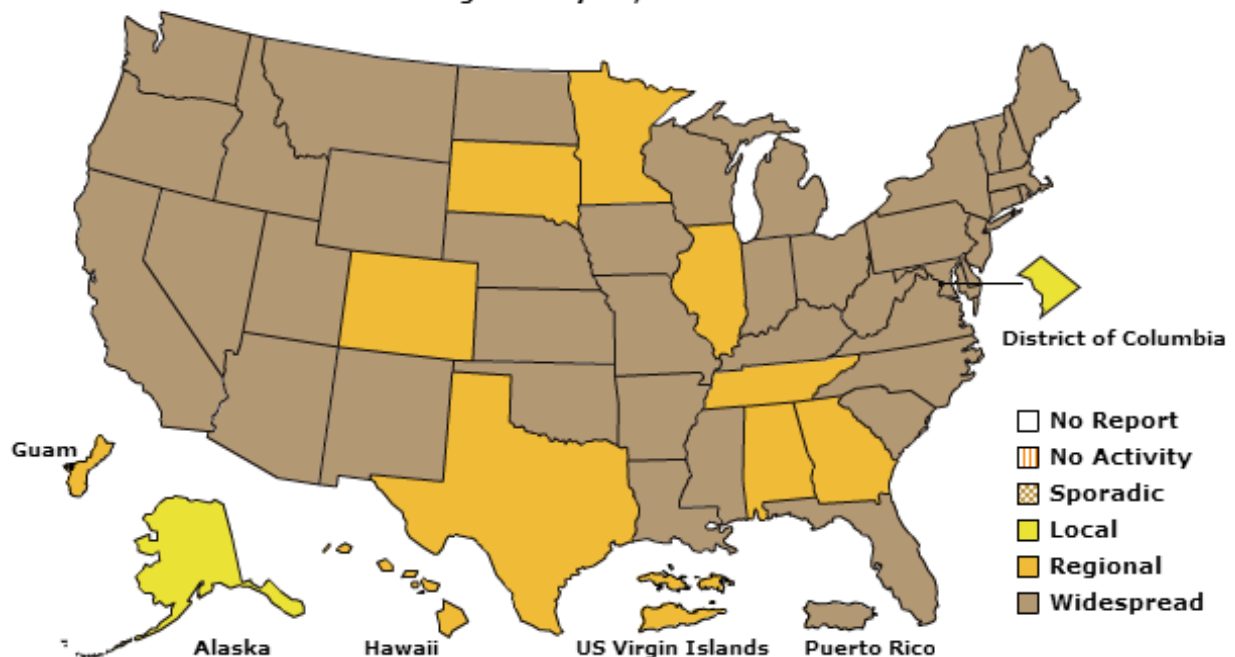
No new influenza-associated pediatric deaths were reported to MDCH. One influenza-associated pediatric death (1SE) has been reported to MDCH for the 2014-15 season.

National: Influenza activity remained elevated in the United States, with 4.1% of outpatient visits due to influenza-like illness. Eight influenza-associated pediatric deaths were reported, bringing the 2014-15 total to 69. Additional information is in the weekly FluView reports available online at: www.cdc.gov/flu/weekly/.

International: Influenza activity remained high in the Northern Hemisphere with influenza A(H3N2) viruses predominating so far. Summary information is available online at www.who.int/influenza/surveillance_monitoring/updates/latest_update_GIP_surveillance/en/.

A Weekly Influenza Surveillance Report Prepared by the Influenza Division Weekly Influenza Activity Estimates Reported by State and Territorial Epidemiologists*

Week Ending January 31, 2015- Week 4





INFLUENZA ACTIVITY THROUGHOUT THE U.S.

- CDC: [Flu season continues; severe for people 65 and older](#)
 - Hospitalization rate of people 65+ years is highest rate recorded since CDC began tracking the data in 2005

AVIAN INFLUENZA A(H5N1)

- [H5N1 detected in British Columbia hobby flock](#)
- [Four new H5N1 cases in Egypt](#)

AVIAN INFLUENZA A(H7N9)

- Global case count since 2013 is at [584 cases](#)
- WHO: [Human infection with avian influenza A\(H7N9\) virus - China](#) (Feb. 8)
- CDC: [Travel notice, level 1, practice usual precautions](#) (Feb. 6)
- ECDC: [Rapid risk assessment, H7N9](#) (Feb. 2)

OTHER AVIAN INFLUENZA NEWS

- [3rd human infection with avian H5N6 confirmed in China](#)
- [Assessment of transmission, pathogenesis and adaptation of H2 subtype influenza viruses in ferrets](#)
- [High-path avian flu outbreaks hit more farms in Taiwan, Bulgaria](#)

DAYCARE FLU VACCINE REQUIREMENTS

The National Foundation for Infectious Diseases (NFID) published a report titled "[Flu Care in Day Care: The Impact of Vaccination Requirements](#)." Currently, New Jersey, Connecticut, and New York City have implemented flu vaccine requirements for children enrolled in licensed preschools, child care, or day care centers. The report includes the challenges and lessons learned by those jurisdictions. NFID also archived a webinar on the same topic which can be found [here](#).

MI IMMUNIZATION TIMELY TIPS NEWSLETTER

The January/February issue of MTT is now [online](#). This issue contains articles on Michigan's first confirmed measles case of 2015, the 2015 immunization schedules, Michigan's vaccination waiver rule change, and more!

Archived editions of FluBytes are available [here](#) and MI FluFocus archives are [here](#).

INFLUENZA A(H3N2) VARIANT VIRUS

- [Safety and immunogenicity of a subvirion monovalent unadjuvanted inactivated influenza A/H3N2 variant \(H3N2v\) vaccine in healthy persons ≥18 years old](#)
 - In most healthy adults, one 15 µg dose of H3N2v vaccine elicited protection
 - Dose 2 provided no significant enhancement in antibody response
- [Emergence of human-like H3N2 influenza viruses in pet dogs in Guangxi, China](#)

INFLUENZA-RELATED JOURNAL ARTICLES

- [Comparative effectiveness of high-dose vs standard-dose flu vaccines in U.S. residents 65 years and older from 2012 to 2013 using Medicare data: a retrospective cohort analysis](#)
- [Start of the 2014-15 influenza season in Europe: drifted influenza A\(H3N2\) viruses circulate as dominant subtype](#)
- [Low effectiveness of seasonal flu vaccine in preventing lab-confirmed flu in primary care in the U.K.: 2014-15 mid-season results](#)
- [Infection prevention and mass vaccination training for U.S. point of dispensing staff and volunteers: a national study](#)

OTHER INFLUENZA-RELATED NEWS

- [CDC Seasonal Flu Doses Distributed](#): ~147.7 million doses in U.S. as of January 30, 2015
- [Hong Kong battles nasty influenza strain that's killed 140 so far](#)
- [Influenza-related illnesses tied to surge in hospital admissions for U.K. kids](#)
- [Researchers develop model to predict and track flu activity](#)
- [UK, Canada add to bad news on this year's flu vaccine](#)
- [Lawmakers to probe flu vaccine production process](#)

FLU WEBSITES

www.michigan.gov/flu
www.cdc.gov/flu
www.flu.gov
<http://vaccine.healthmap.org/>

For questions or to be added to the distribution list, please contact Stefanie DeVita at devitas1@michigan.gov.

MDCH Contributors

Bureau of Epidemiology – S. Bidol, MPH, S. DeVita, RN, MPH, S. Eckel, MPH, B. Reimink, MPH
Bureau of Labs – B. Robeson, MT, V. Vavricka, MS